REMARKS

Claims 1, 2, 4-10 and 12-15 are pending in the instant application. Claims 1, 2, 4-10 and 12-15 have been rejected. Claim 1 has been amended. No new matter has been added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Election/Restriction

The Restriction Requirement necessitating election of SEQ ID NO: 3 has been deemed proper and made Final. Accordingly, Applicants have amended claim 1 to remove the non-elected subject matter from the pending claims.

II. Rejection of Claims Under 35 U.S.C. 102(b)

The rejection of claims 1, 2, 4, 5, 12, 14 and 15 under 35 U.S.C. 102(b) as being anticipated by Wei et al. (1996) has been maintained for reasons of record. The Examiner suggests that the arguments presented were not persuasive because this paper discloses antisense targeting the initiation codon region and that region encompasses the 5'-untranslated region and the coding

region as claimed. Applicants respectfully traverse this rejection.

At the outset, Applicants have amended claim 1, and by dependency claims 2-10 and 12-15, to refer to antisense compounds targeted to specific nucleobase regions within the 5'-untranslated region or the coding region of hematopoietic cell protein tyrosine kinase of SEQ ID NO: 3. Support for these amendments can be found throughout the specification as filed but in particular at pages 81-85.

Wei et al. (1996) disclose a 20 mer phosphorothioate oligonucleotide targeting the start codon of human hematopoietic cell protein kinase. Nowhere does this patent teach or suggest antisense compounds that target any other specific region of hematopoietic cell protein kinase nucleic acid molecules as now claimed, which does not include the start codon region and specifies specific nucleobase regions within the 5'-untranslated region and the coding region of this nucleic acid molecule. Accordingly, this paper fails to teach the limitations of the claims as amended and cannot anticipate the instant invention (MPEP 2131). Withdrawal of this rejection is respectfully requested.

III. Rejection of Claims Under 35 U.S.C. 103(a)

Claims 1, 2 and 4-15 have been rejected under 3mj5 U.S.C. 103(a) as being unpatentable over Wei et al., in view of Quintrell et al. (1987), Lichtenberg et al. (1992), and Milner et al. (1997) for reasons of record. Applicants believe that the Examiner has meant to reject only the pending claims, claims 1, 2, 4-10 and 12-15. The Examiner suggests that Applicants arguments were not persuasive because Wei et al. disclose antisense targeting the initiation codon, a region that is included in the language of the claims as it overlaps the 5'-untranslated region and the coding region. Applicants respectfully traverse this rejection.

At the outset, claim 1 and its dependent claims have been amended to recite antisense compounds targeted to specific nucleobase regions within the 5'-untranslated region and the coding region of hematopoietic cell protein tyrosine kinase of SEQ ID NO: 3. Support for these amendments can be found throughout the specification as filed, but in particular at pages 81-85.

The primary reference citec has been discussed *supra* (Wei et al.). As stated above, this reference fails to teach antisense

targeted to the specific regions as now claimed. Therefore this reference fails to teach or suggest the limitations of the claims as amended.

The secondary references cited fail to overcome the deficiencies in teaching of the primary reference.

Milner et al. teach a method for identifying antisense oligonucleotides using optimization techniques where the antisense oligonucleotides have 1-17 bases and target sequences of a gene. However, nowhere does this paper teach or suggest antisense oligonucleotides 8 to 50 nucleobases in length targeted to hematopoietic cell protein kinase, or any region of a hematopoietic cell protein kinase nucleic acid molecule.

Quintrell et al. (1987) disclose the cloning of human hematopoietic cell protein kinase. Although the sequence of the gene may be taught by this reference, nowhere does this reference teach or suggest antisense oligonucleotides 8 to 50 nucleobases in length targeted to hematopoietic cell protein kinase, or any region of a hematopoietic cell protein kinase nucleic acid molecule.

Lichtenberg et al. (1992) disclose that the expression of hematopoietic cell protein kinase is highest in differentiated

monocytic and granulocytic cells indicating the protein may function in myeloid differentiation or activation. However, nowhere does this paper teach or suggest antisense oligonucleotides 8 to 50 nucleobases in length targeted to hematopoietic cell protein kinase, or any region of a hematopoietic cell protein kinase nucleic acid molecule.

Therefore, even when combined, these secondary references fail to overcome the deficiencies in teaching of the primary reference.

To establish a *prima facie* case of obviousness, three basic criteria must be met. MPEP 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art must teach or suggest all claim limitations. Clearly, the combination of prior art cited fails to teach or suggest the limitations of the claims as amended, which claim antisense compounds targeted to specific regions of nucleic acid molecules encoding hematopoietic cell protein kinase that are not taught in the cited references, and thus cannot

render the instant claimed invention obvious. Also of importance is the fact that the references cited by the Examiner would fail to provide one of skill with a reasonable expectation of success at successfully inhibiting expression of this gene with antisense as claimed. It is only with the specification in hand that one of skill would know how to target the specific claimed regions with antisense compounds and expect that the expression of this gene would be inhibited. Withdrawal of this rejection is therefore respectfully requested.

IV. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly,

Attorney Docket No.: **RTS-0345**
Inventors: **Borchers and Dobie**
Serial No.: **10/007,010**
Filing Date: **December 4, 2001**

favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,

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Date: **October 14, 2003**

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